# Andromeda Cartographers

Notes:

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*Right ascension and declination is assigned to every point/coordinate*

*To map objects on coordinates systems.*

*Celestial sphere -> so we need trigonometric functions*

*Paralex/parallax method to measure objects nearby*

*With just the angles, you can reference objects in the sky and map*

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Resources:

James web telescope

How to handle datasets-> open data and information portal government of Canada: <https://search.open.canada.ca/data/>

Tutorials on github

Micro application -> easier visualization of data

Canadian Astronomy Data Centre archive -> collections (has telescope data)

Canadian Astronomy Center

EODMS

Registry of open data of AWS

CSA open data

# Executive Overview

Problem: Nasa researchers cannot access details on the images without the need for a powerful machine that can read the data in the image.

Solution: Our solution is to create an application that can take large images and break them down into smaller readable images which are then put together in a 3D model like mold, inspired by google maps, that allows them to zoom in and out of the image as well as scroll through it. This allows them to concentrate on the desired coordinates of the image so that they can analyse and find patterns. These coordinates can be saved and stored with comments stored as bookmarks for the researchers to refer to.

Key Features:

- Zoom in/out without losing resolution

- Save coordinates with notes

- Login

? - Get the size of different space bodies (function with parameters of info we don’t know for scale calculations)

Free to use for both researchers and interested people such as students

Resources:

- OpenSeaDragon (like Leaflet, but better)

- Nasa images ()

- AI

- Node JS

- GitHub

- Leaflet

- MongoDb

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Challenges:

What is the best way to zoom into an image without losing quality and keep the same high resolution?

How can one locate themselves in the image, how to use coordinates on space?